UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/723,481	11/28/2000	Dave McDysan	RIC-000-42	7586

25537	7590	11/18/2004	

MCI, INC
TECHNOLOGY LAW DEPARTMENT
1133 19TH STREET NW, 10TH FLOOR
WASHINGTON, DC 20036

EXAMINER
BATES, KEVIN T

ART UNIT	PAPER NUMBER
2155	

DATE MAILED: 11/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 October 2004*.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-50* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

       1.☐ Certified copies of the priority documents have been received.

       2.☐ Certified copies of the priority documents have been received in Application No. _____.

       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This Office Action is in response to a communication made on October 19, 2004.

Claims 1-59 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-5, 15, 17, 21, 26-30, 39, 41, and 45-46 are rejected under 35 U.S.C.

103(a) as being unpatentable over Amara (6674743) in view of Bhattacharya

(6587466).

Regarding claim 1 and 26, Amara discloses a access device for use in a network

access system (Column 4, lines 15 – 16), said access device comprising: first and

second network interfaces through which packets are communicated with a network

(Column 4, lines 16 – 18); a packet header filter (Column 4, lines 55 – 65) and a

forwarding table (Column 5, lines 28 – 32), wherein the forwarding table is utilized to

forward packets between the first and second network interfaces (Column 5, lines 28 –

32), but does not explicitly indicate that said packet header filter identifies messages

received at to one of the first and second network interfaces on which policy-based

services are to be implemented and passes identified messages via a message

interface to an external processor included in said network access system for

implementation of the policy-based services by the external, wherein said packet

header filter passes all other received messages through the packet header filter to

another processor. Bhattacharya discloses a programmable access device that

includes an external processor (Column 5, lines 50 – 60; Column 12, lines 8 – 14). In

part of the system, Bhattacharya discloses messages received on which policy-based

services are to be implemented and passes identified messages via a message

interface to an external processor included in said network access system for

implementation of the policy-based services by the external (Column 6, lines 44 – 50),

wherein said packet header filter passes all other received messages through the

packet header filter to another processor (Column 6, lines 50 – 56). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to use

Bhattacharya's teaching of an external processor in Amara's system in order to allow

preprocessing of policy rules and allow access devices to search for policy rules to

apply to messages which it has not current rules to process (Column 6, lines 11 – 18).

Regarding claim 2 and 27, Amara discloses that the packet header filter receives

packets directly from the first network interface (Figure 2, elements 102 and 116).

Regarding claim 3 and 28, Amara discloses that the packet header filter is a first

packet header filter (Figure 2, elements 102 and 116), and wherein the programmable

access device further comprises a second packet header filter that receives packets

directly from the second network interface (Figure 2, elements 104 and 118).

Regarding claims 4 and 29, Amara in combination with Bhattacharya discloses

that the packet header filter filters packets for service processing based upon protocol

information pertaining to protocol layers higher than layer 3 (Column 1, lines 44 – 55;

Column 2, lines 17 – 26).

Regarding claim 5 and 30, Amara discloses a policer that polices packets by

reference to traffic parameters (Figure 3, elements 224-228).

Regarding claim 15 and 39, Amara in combination with Bhattacharya discloses a

control interface through which said packet header filter and said forwarding table are

programmed (Bhattacharya, Column 5, lines 54 – 56).

Regarding claim 17 and 41, Amara in combination with Bhattacharya discloses a

policer that polices packets by reference to programmed traffic parameters

(Bhattacharya, Column 2, lines 38 – 39).

Regarding claims 21 and 45, Amara in combination with Bhattacharya discloses

that the identified message is a Resource Reservation Protocol (RSVP) message

(Bhattacharya, Column 2, lines 34 – 35).

Regarding claim 22 and 46, Amara in combination with Bhattacharya discloses a

plurality of protocol-specific state machines for a respective plurality of protocol types

(Column 2, lines 22 – 23).

Claims 6, 8-14, 18, 23-25, 31, 33-38, 42, and 47-50 are rejected under 35

U.S.C. 103(a) as being unpatentable over Amara in view of Bhattacharya as

applied to claims 1-5, 15, 17, 21, 26-30, 39, 41, and 45-46 above, and further in

view of Gai (6167445).

Regarding claims 6 and 31, the combination of Amara and Bhattacharya does

not explicitly indicate that the policer comprises a marker that marks packets that do not

conform with the traffic parameters. Gai teaches a method of identifying packets which do not conform with the traffic parameters and a way to mark those packets (Column 20, lines 2 – 9; Column 4, line 64 – Column 5, line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching on the combination of Amara and Bhattacharya in order to be able to deal with packets which are labeled in inaccurately and handle them accordingly (Column 4, line 64 – Column 5, line 8).

Regarding claims 7, 16, 32, and 40, the combination of Amara and Bhattacharya does not explicitly indicate at a least a usage monitor that monitors at least one traffic type. Gai teaches a system that monitors traffic entering the device (Column 4, lines 58 – 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teachings in the combination of Amara and Bhattacharya in order to make sure all the traffic is following the rules agreed to in the SLA (Column 4, lines 58 – 67).

Regarding claims 8 and 33, the combination of Amara and Bhattacharya does not explicity indicate the usage monitor has an associated threshold that when exceeded generates a reporting event for the usage mointor. Gai teaches issuing thresholds for priority queuing and traffic classes (Column 13, lines 15 – 18) and has a usage monitor that get notified when traffic exceeds profile and makes necessary corrections (Column 4, lines 60 – 67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching of thresholds for

traffic types in Nilakantan's system in order to provide a certain quality of service for certain traffic (Column 3, lines 6 – 26).

Regarding claims 9 and 34, the combination of Amara and Bhattacharya in combination with Gai discloses that a reporting interface that communicates the reporting event to an external processor (Bhattacharya, Figure 2, element 260; Column 6, lines 40 – 44; where the PEE has to update and modify the behavior or some policies by reporting the changes to the CPE).

Regarding claims 10 and 35, the combination of Amara and Bhattacharya in combination with Gai discloses that the associated threshold comprises a session activity level threshold (Gai, Column 13, lines 15 – 36).

Regarding claims 12 and 37, the combination of Amara and Bhattacharya does not explicitly indicate one or more output buffers for outgoing packets. Gai teaches a plurality of output buffers (Column 2, lines 43 – 46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Gai's teaching on the combination of Amara and Bhattacharya system in order to allow priority queuing and allow packets to have different priorities (Gai, Column 2, lines 46 – 57).

Regarding claims 13, the combination of Amara and Bhattacharya in further combination with Gai discloses a scheduler associated with the one or more output buffers that schedules the transmission of outgoing packets within the one or more output buffers (Gai, Column 10, lines 26 – 27).

Regarding claims 14 and 38, the combination of Amara and Bhattacharya in combination with Gai discloses the scheduler supports multiple quality of service classes (Gai, Column 2, lines 44 – 64; Table, lines 25 – 41).

Regarding claims 18 and 42, the combination of Amara and Bhattacharya in combination with Gai discloses one or more output buffers for outgoing packets and an associated scheduler that transmits the outgoing packets from the one or more output buffers through the second network interface according to a programmed methodology (Gai, Column 2, lines 44 – 64; Column 10, lines 26 – 37).

Regarding claims 23 and 47, the combination of Amara and Bhattacharya in combination with Gai discloses said plurality of protocol-specific state machines include a transport control protocol (TCP) state machine that, responsive to a control command, provides preferential treatment to a particular TCP session because Gai discloses the use of user priority which can be given to any packets or session and will be given a higher priority in the queuing process (Gai, Column 2, lines 44 – 57).

Regarding claims 24 and 48, the combination of Amara and Bhattacharya in combination with Gai discloses a reporting interface through which the programmable access device reports state information for active sessions to an external processor (Gai, Column 14, lines 41 – 56).

Regarding claims 25 and 49, the combination of Amara and Bhattacharya in combination with Gai discloses the reporting interface reports the state information for an active session in response to allocation of service to a new external service controller (Gai, Column 14, lines 41 – 56).

Regarding claim 50, Amara discloses a device for use in a network access system (Column 4, lines 15 – 16) comprising: a first network interface through which packets are communicated with a first network; a second network interface through which packets are communicated with a second network (Column 4, lines 16 – 18) first packet header filter coupled to the first network interface and to the message interface, wherein the first packet header filter identifies messages (Figure 2, elements 102 and 116), and a second packet header filter, different from the first packet header filter, coupled to the second network interface, wherein the second packet header filter identifies messages, received from the second network interface (Figure 2, elements 104 and 118) but does not explicitly indicate that said packet header filter identifies messages received at to one of the first and second network interfaces on which policy-based services are to be implemented and passes identified messages via a message interface to an external processor included in said network access system for implementation of the policy-based services by the external, wherein said packet header filter passes all other received messages through the packet header filter to another processor. Bhattacharya discloses a programmable access device that includes an external processor (Column 5, lines 50 – 60; Column 12, lines 8 – 14). In part of the system, Bhattacharya discloses messages received on which policy-based services are to be implemented and passes identified messages via a message interface to an external processor included in said network access system for implementation of the policy-based services by the external (Column 6, lines 44 – 50), wherein said packet header filter passes all other received messages through the

packet header filter to another processor (Column 6, lines 50 – 56). It would have been

obvious to one of ordinary skill in the art at the time the invention was made to use

Bhattacharya's teaching of an external processor in Amara's system in order to allow

preprocessing of policy rules and allow access devices to search for policy rules to

apply to messages which it has not current rules to process (Column 6, lines 11 – 18).

Amara also does not explicitly indicate that the policer comprises a marker that marks

packets that do not conform with the traffic parameters. Gai teaches a method of

identifying packets which do not conform with the traffic parameters and a way to mark

those packets (Column 20, lines 2 – 9; Column 4, line 64 – Column 5, line 8) and

discarding those packets (Column 20, lines 2 – 9). It would have been obvious to one

of ordinary skill in the art at the time the invention was made to use Gai's teaching on

Nilakantan in order to be able to deal with packets which are labeled in inaccurately and

handle them accordingly (Column 4, line 64 – Column 5, line 8).

Claims 19 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Amara in view of Bhattacharya as applied to claims 1-5, 15, 17, 21, 26-30, 39,

41, and 45-46 above, and further in view of Gibson (6680943).

Regarding claims 19 and 43, the combination of Amara and Bhattacharya does

not explicitly indicate that the identified message is a session initiation protocol (SIP)

message. Gibson teaches the use of SIP in a monitored network involving edge routers

(Column 6, lines 58 – 67). It would have been obvious to one of ordinary skill in the art

at the time the invention was made to use Gibson's teaching of SIP in the combination

of Amara and Bhattacharya system in order to allow control messages to be transferred

over the same communication lines as packets (Column 8, lines 42 – 52).

Claims 20 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Amara in view of Bhattacharya as applied to claims 1-5, 15, 17, 21, 26-30, 39,

41, and 45-46 above, and further in view of Jorgensen (6452915).

Regarding claims 20 and 44, the combination of Amara and Bhattacharya does

not explicitly indicate that the identified message is an Internet Group Multicast Protocol

(IGMP) message. Jorgenson teaches the use of IGMP in monitored network (Column

42, lines 34 – 46). It would have been obvious to one of ordinary skill in the art at the

time the invention was made to implement IGMP in the combination of Amara and

Bhattacharya system to allow a way of handling multicasting and allow multicasting to

help reduce traffic (Column 42, lines 20 – 46).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Amara in combination of Bhattacharya and Gai as applied to claims 6, 8-14, 18,

23-25, 31, 33-38, 42, and 47-50 above, and further in view of Natarajan (6505244).

Regarding claims 11 and 36, the combination of Amara, Bhattacharya, and Gai

does not explicitily indicate a fault monitor. Natarajan teaches a policy system in a

network node that includes a fault monitor (Column 26, lines 12 – 26). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to use

Natarajan's idea for fault monitoring in Amara and Bhattacharya's system in order to

have better feedback for dynamic adjustments to be made incase of bad performance

or errors in the system (Column 2, lines 36 – 43).

Response to Arguments

Applicant's arguments with respect to claims 1-50 have been considered but are moot in view of the new ground(s) of rejection.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No. 5490252 issued to Macera, because it discloses multiple interfaces coupled to a forwarding table and an external routing engine.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Bates whose telephone number is (571) 272-3980. The examiner can normally be reached on 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KB

KB
November 12, 2004

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER